

## CLASSIFICATION OF PASTURES.

Before dealing with some of the typical pasture mixtures of the present day it is necessary to briefly classify the various types of sown grass-land in New Zealand. Such a classification can best be based more or less on duration, and the following, excluding certain annual pastures, are the main types:—

(1.) Temporary pastures: These consist of grass-land that is laid down for from one to two years, and is then ploughed up and used for annual crops or, maybe, laid down in a more permanent type of grass-land. Temporary pastures are of great value, as they can be sown so as to yield a very large amount of herbage at some particularly crucial period of the year. On dairy farms autumn-sown temporary pastures are essential for producing an abundance of feed in the early spring. Spring-sown temporary pastures are also of great value. In New Zealand temporary pastures are found to be extremely serviceable in the breaking-in of ploughable fern country, and likewise during the process of eradicating blackberry before the land is sufficiently clean to lay down in long-rotation or permanent grass-land.

(2.) Short-rotation pastures: These are characteristic of the cereal-growing region of New Zealand, and last from three to four years. In general their yield after the second year is poor, and they generally have to be ploughed up at the end of the third year. The ground is then put through a rotation of crops and again laid down into short-rotation grass. The comparative poorness of short-rotation pastures is one of the weak features of New Zealand grass-land, and the method of making them profitably productive for at least four years is one of the major problems in pasture-formation.

(3.) Long-rotation pastures: These remain down from six to ten years, or even longer, being broken up when they show signs of deterioration that cannot be remedied by top-dressing.

(4.) Permanent pastures: These remain down indefinitely and are never broken up. When they are on unploughable country a certain amount of surface-sowing may be done from time to time. Burning, surface-sowing, and heavy periodical stocking with cattle and sheep are often necessary both in their establishment and maintenance. The majority of our special problems in pasture-formation are connected with the establishment of permanent grass-land on unploughable country. Grass-land on ploughable areas and intended to be permanent often becomes very inferior through errors in seeding and management, and may be turned into long-rotation grass-land.

## TEMPORARY-PASTURE MIXTURES.

There is not a great variation in the mixtures used for temporary pastures, as only Italian or Western Wolths rye-grass, red clover,